



# Forest Insect & Disease Management

Survey Report

S-23-75

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Mortality Caused by Jack Pine Budworm  
Huron National Forest, Michigan

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**INTRODUCTION** Jack pine budworm, Choristoneura pinus Freeman, defoliation on the Huron National Forest has been common for the last 3 years. In 1974, severe defoliation was found near Oscoda on the Tawas Ranger District, and less severe near Mack Lake, Mio Ranger District.

**OBJECTIVE** To determine the location and extent of jack pine mortality for salvage operations.

**METHODS** On July 23, 1975, all major jack pine type areas were flown over at about 2,000 feet above ground to look for tree mortality. When found, flights were made at about 800 feet above ground, and the tree mortality areas were sketch-mapped. Observers included Dan Mosher, Michigan DNR, and myself. Three levels of mortality were identified:

None	- Less than 10 percent
Light	- 11-25 percent
Moderate	- 26-70 percent

Aerial observations were ground checked the following week.

**RESULTS AND DISCUSSIONS** The heaviest tree mortality is found in the Oscoda area (see map). The large area, about 3,000 acres, is an old burn site. The jack pine is densely stocked, stunted, about 1-3 inches d.b.h. after nearly 30 years, frequently referred to as dog-hair stands. The mortality is 50-70 percent of the trees, heavier in pockets.

Due to small size, commercial volume loss is negligible. On the periphery of the block are a few stands of commercial size jack pine where salvage is possible.

The smaller area of about 600 acres in R8E T23N is mature jack pine. The tree mortality is about 25 percent or less, with heavy top kill on many of the surviving trees.

The remaining area west and south of Oscoda has scattered small stands of jack pine with moderate tree mortality. Most of these stands are in private ownership or within the Tuttle Marsh Wildlife Area.



Elsewhere on the Forest, tree mortality is scattered and less than 10 percent. Much of the 1974 defoliated area south of Mack Lake is logged. Some tree mortality was apparent in Sections 19 and 20, along FR 4457, and on the north edge of Section 29 (T25N, R4E). Top kill in the Mack Lake area is common. Scattered tree mortality is also present along the Michigan Highway 33, in Sections 12 and 13, T25N, R3E. This mortality appears to be older, perhaps from a 1973 defoliation or earlier.

All mortality areas are known to the Ranger District's staff. Wherever possible, timber sales are directed to those stands. The major dilemma appears to be in the Oscoda dog-hair stands. Despite heavy mortality, many trees remain alive. A stocking survey may be desirable to determine if a sufficient number of healthy crop trees is present.

Mortality caused by jack pine budworm defoliation, Tawas Ranger District, Huron National Forest, Michigan, 1975.

